### **INVITATION TO BID**

### TOWN OF NEWINGTON

The Town of Newington is accepting bids for Highway Crack Sealing. All bids must be submitted in accordance with Town specifications and on forms supplied by the Town. Bid forms and specifications are available in the Office of the Town Manager, 131 Cedar Street, Newington, Connecticut 06111, or on line at www.newingtonct.gov, after selecting "Doing Business" and "Bid Opportunities". Bids will be received and opened publicly at 2:30 pm on August 4, 2009. The successful bidder shall be required to submit performance and labor & materials payment bonds for \$20,000. The Town of Newington reserves the right to reject any or all bids, or to waive informalities if deemed in the best interest of the Town.

John L. Salomone Town Manager

Bid No. 1, 2009-10

#### TOWN OF NEWINGTON

#### HIGHWAY CRACK SEALING

# GENERAL REQUIREMENTS

# **INTENT**

The intent of these specifications is to select a Contractor to perform all operations regarding the cleaning and filling of random cracks in asphalt pavements within the Town of Newington, including vegetation removal and sterilization of cracks where necessary.

### BID PROCEDURES

All bids shall be submitted on forms provided by the Town of Newington and addressed to the Town Manager's Office, Town Hall, 131 Cedar Street, Newington, CT 06111. Bids will be opened at 2:30 PM on August 4, 2009 in the Town Manager's Office. Sealed bid envelopes shall be clearly labeled "Bid No. 1, 2009-10 Highway Crack Sealing". The Town reserves the right to waive informalities or to reject any or all bids when such action is deemed in the best interests of the Town. The Town reserves the right to delete such items as it deems necessary from these proposals. A bid shall be signed in order to be considered acceptable by the Town. All exceptions of the bidder to the terms and specifications of this bid shall be made in writing and submitted in full with the Bid Form. For all other terms and specifications, submission of a bid constitutes acceptance by the bidder. The Town reserves the right to reject bids which contain one or more exceptions that are unacceptable to the Town. All prices bid by the Contractor shall be held firm until all work has been completed. The low bid will be determined by adding the totals of the various quantities for each item, as estimated by the Town, multiplied by the bid unit price. The quantities estimated by the Town are not firm requirements, but rather the estimated amounts of work anticipated by the Highway Department at the time of the bid opening. The Town reserves the right to alter the actual quantities of work performed, both within a given year and over the life of the contract, to serve the Town's best interests and to conform to budgetary limitations. Any written addenda for this bid will be posted on the Town's website, www.newingtonct.gov, after selecting "Doing Business" and "Bid Opportunities", at least 48 hours prior to the date and time of the bid opening. It shall be the bidder's responsibility to check the Town's website to determine the contents, or absence, of any addenda.

#### TERMINATION

All work done as a result of this bid shall be completed to the satisfaction of the Town Manager. The Town reserves the right to terminate this agreement upon ten (10) calendar days written notice of failure by the Contractor to provide service to the satisfaction of the Town Manager. If the Contractor does not start the work within time

limits identified by the Town or does not prosecute the work in accordance with these specifications to the satisfaction of the Town Manager, the Town of Newington reserves the right to engage other Contractors and to charge the difference or extras in cost, if any, or to recover in bond.

## NONDISCRIMINATION

The Contractor shall agree and warrant that it will not discriminate or permit discrimination against any person or group of persons on the grounds of sex, race, color, religion, age, marital status, ancestry, national origin, past history of mental disorder, mental disability, physical disability, or other basis in any manner prohibited by the laws of the United States, the State of Connecticut, or the Town of Newington.

### **HOLD HARMLESS**

The Contractor agrees to indemnify, defend and hold harmless the Town of Newington and its respective officers, employees, agents and/or servants against all demands, claims, actions or causes of actions, losses, damages, liabilities, costs and expenses, including without limitation, interest, penalties, court costs and reasonable attorney's fees, asserted against, resultant to, imposed upon or incurred by the Town of Newington resulting from or arising out of:

- 1. Any breach by the Contractor of the terms of the specifications, or
- 2. Any injuries (including death) sustained by or alleged to have been sustained by the officers, employees, agents and/or servants of the Town of Newington or the Contractor or subcontractors or material men, or
- 3. Any injuries (including death) sustained by or alleged to have been sustained by any member of the public or otherwise any or all persons, or
- 4. Any damage to property, real or personal, (including property of the Town of Newington or its respective officers, agents and servants)

caused in whole or in part by the acts or omissions of the Contractor, any subcontractor, or any material men or anyone directly or indirectly employed by them while engaged in the performance of any work for the Town of Newington.

### HAZARDOUS MATERIALS

The Contractor, when providing, using, storing, delivering or disposing of any toxic, hazardous or potentially dangerous materials, shall advise the Town, in writing, of the condition of such hazardous materials in advance of conducting any work and is responsible for protecting the Contractor's own employees, those of the Town, and all its' agents from the hazards associated with such materials. The Contractor shall furnish direction, precautions, or training, provided or made available from the supplier of the materials, or other acceptable source, for use by all persons who may be subject to the hazard. The Contractor shall comply with all applicable regulations and laws. The

Contractor shall dispose of any hazardous or toxic substances in accordance with all applicable regulations or laws, including E.P.A. and D.O.T., and shall provide the Town with the appropriate generator E.P.A. number. The Contractor shall do all things necessary to insure that there will be no discharge, spillage, uncontrolled loss, seepage or filtration of any hazardous or toxic waste on the site caused by the Contractor's operations. The Contractor is responsible for any and all costs and liabilities associated with the clean up of any such spillage, etc., or as required by any regulating authority, and holds the Town harmless against any current or future liabilities resulting from such an incident.

### **INSURANCE**

The successful bidder shall furnish a certificate of insurance to the Town Manager for the following insurance coverage within ten (10) days from contract execution. All insurance coverage shall be written with an insurance company licensed to conduct business in the State of Connecticut. Insurance coverage shall remain in full force for the duration of the contract term including any and all extensions. Such certificate of insurance shall specify that the Town of Newington will receive thirty (30) days notice of any cancellation, non-renewal or reduction in coverage and limits originally provided.

 Commercial General Liability including Premises-Operations, Independent Contractors, Blanket Contractual, Products and Completed Operations:

> \$1,000,000 Each Occurrence \$1,000,000 Aggregate

Combined Single Limit for personal injury or property damage or both combined.

Such policy shall name the Town as additional insured.

2. Comprehensive Automobile Liability covering owned, non-owned, hired or leased vehicles.

\$1,000,000 Each Accident

Combined Single Limit for bodily injury or property damage or both combined.

3. Workers Compensation Insurance in accordance with Connecticut State Statutes.

Employers Liability Limit - \$100,000.

### **TERM**

The contract resulting from this bid shall remain in effect through June 30, 2011. It may be extended for one additional year, through June 30, 2012 upon the mutual consent of both parties.

## **PAYMENT**

Payment for the work associated with this bid shall be made within thirty (30) days by the Town, following the completion of all work invoiced to the satisfaction of the Town Manager, as determined by inspection of the completed project the Highway Superintendent or his designated agent, and upon submission of an invoice to the Town of Newington Finance Department, 131 Cedar Street, Newington CT 06111. Payment for materials shall only be for materials already used or for materials stored on site at a Town-owned or job location. Frequency of invoices shall not exceed one per month. Payment for all items shall be made at the contract unit price for the actual amount of work required, performed and accepted.

The Highway Superintendent will make a check of the Contractor's monthly requisitions for partial payments to arrive at an estimate such as, in his opinion, shall be fair and just, of the materials in place and of material suitability stored on the site and of the amount of work performed on the contract. In making such partial payments for the work, there shall be deducted ten percent (10%) of the estimated amount of each payment to be retained by the Town until one year after completion of the work in an acceptable manner. The Contractor shall invoice the Town for retainage one year after the date of the initial payment, provided no corrective measures are outstanding. It is recommended that measurements of work be done with the Highway Superintendent or his agent before invoices are submitted.

### STORAGE AND HANDLING

All materials and equipment shall be delivered, handled and stored in a manner which prevents the intrusion of foreign materials and damage by breakage or weather. Such storage, delivery, and handling shall not interfere with Town operations nor impede access to any public areas. All equipment shall be stored in a clean, dry location. Material which is damaged shall be replaced with new material at no additional cost to the Town.

### **PROTECTION**

Precaution for the protection of persons and property shall be exercised by the Contractor at all times. The safety provisions of applicable laws, as well as building, fire and construction codes, shall be observed at all times. The Contractor shall take such additional safety and health measures as are reasonably necessary. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and

programs in connection with this work. The Contractor shall take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to: all employees and other persons who may be affected by the work; all the work, including materials and equipment that is in storage on or off the work sites; and other property at all work sites or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities. No materials or obstruction shall be placed within 15 feet of any fire hydrant, which at all times shall be readily accessible to the Newington Fire Department, or in such a manner that they block any public sidewalk. The Contractor shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection, including posting danger signs and other warnings against hazards and promulgating safety regulations. The Contractor shall notify the owners of adjacent utilities when prosecution of the work may affect them. All damage, injury or loss to any property caused directly or indirectly, in whole or in part, by the Contractor, any subcontractor or material men, will be remedied by the Contractor. In emergencies affecting the safety of persons, the work, or property at the site or adjacent thereto, the Contractor, without special instruction from the Town, is obligated to act, at its discretion, to prevent threatened damage, injury or loss.

# **CLEANUP**

Removal of material resulting from the work, such as sand, vegetation, debris, loose or ground pavement, etc., is the responsibility of the Contractor. All accumulated rubbish and debris shall be removed daily from the work site and adjacent areas by the Contractor. Any such rubbish and debris shall not be placed in the Town's dumpster or on Town property but shall be transported by the Contractor from the premises. All dumpster and trash or debris disposal costs shall be included in the bid price. Any inflammable rubbish shall not be burned on the premises but shall be hauled away.

The work area(s) shall be left clean and ready for use by the Town. If the Contractor fails to properly clean up the job site the Town may do so or may hire another firm of its choosing to do so. In either case, the cost of such cleanup shall be charged to the Contractor.

The Contractor must remove all debris of every description daily and as the work progresses leaving the surroundings in a neat and orderly condition to the satisfaction of the Town Manager or his designated agent. Upon completion, and before acceptable and final payment, the Contractor shall remove from the site all equipment, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition.

#### APPEARANCE

All work shall be performed in a workmanlike and professional manner and shall be left with a neat appearance. All disturbed areas, both in and around the work site, shall be restored to their original condition. Any damage to a building, property or pavement

resulting from this work shall be repaired by the Contractor at no additional cost to the Town. All work shall be performed to the satisfaction of the Town Manager.

### **QUALIFICATIONS**

The Contractor shall be engaged in the business of constructing or repairing asphalt roadways. The Contractor shall have demonstrated experience by having been in business (as the same business with the same name as submitted on the Bid Form) for at least three (3) years and by having successfully completed at least three (3) similar projects for other municipalities. If requested by the Town, the bidder shall provide a list of similar projects, with telephone numbers and contact persons, prior to the award of this bid. The Contractor shall have the required background, technical knowledge, and equipment, labor force and satisfactory prior work history to perform this work in a satisfactory manner. Failure to meet the qualifications of this section alone is sufficient grounds for rejection of the bid by the Town.

### WARRANTY

All work shall be guaranteed by the Contractor for one (1) year against any defects. The one year period shall begin from the date all work on a particular project area is completed and accepted by the Town. In the event that a formal notice of acceptance is not issued by the Town, the check date of final payment for the project area shall be the date of acceptance. The Town shall withhold ten percent retainage for the one year warranty period and prior to the release of the Performance Bond.

### **CONDITION**

All material shall be new and unused prior to installation by the Contractor. All items installed shall be completely and properly functional, and installed to the full satisfaction of the Newington Town Manager, before payment will be processed by the Town.

### **SUBCONTRACTORS**

The Contractor shall not subcontract the work without written approval of the Town. A list of any and all subcontractors shall be supplied by the Contractor to the Highway Superintendent before work begins. The Town shall have the right to reject any subcontractor(s) and require the Contractor to find an alternative subcontractor. The Town will only contract with one firm for this work. All subcontractors shall have the required background, technical knowledge, equipment and satisfactory prior work history to perform their tasks in a satisfactory manner.

# **BONDS**

Performance, Labor and Materials Payment bonds in the amount of \$20,000 are required. Within ten calendar days following notice of any award the Contractor shall furnish Performance and Labor and Materials Payment bonds to the Town of Newington for the

duration of the contract, covering faithful performance of the contract and payment of obligations arising hereunder, including payment of all persons performing labor under the contract and furnishing materials in connection with the contract. Such bonds are equal to one hundred percent (100%) of the full amount of the work anticipated by the Town for one year as a guarantee that the terms of the contract shall be complied with in every particular. These bonds shall be issued from a surety company either licensed or approved by the State of Connecticut Insurance Commissioner and which has an A.M. Best's rating of A-VII or better. These bonds shall clearly state that on default by the Contractor the surety company shall pay all payables associated with this job that are outstanding. Further requirements regarding bonds for this work are included in the QUANTITIES section below.

# **DELIVERY**

Delivery of items or commencement of project shall be within 10 days of purchase order issuance or Notice to Proceed issued by the Town.

# **QUANTITITES**

The Town reserves the right at all times to increase or decrease the amount of work in order to remain within budget or if such action is otherwise deemed to be in the best interests of the Town of Newington. The Town has \$22,000 for this work in the 2009-10 budget, with similar budget requests anticipated for future years. The Town can not commit to any dollar amount or quantity of work beyond this initial \$22,000. If the funding for the fiscal year starting July 1, 2010 is reduced or increased, the contractor shall be notified by the Town and the amount of the required bonds shall be reduced or increased accordingly to match the budget figure. Should both parties mutually agree to extend the contract for the option year, and if the funding for the fiscal year starting July 1, 2011 is reduced or increased, the contractor shall be notified by the Town and the amount of the required bonds shall be reduced or increased accordingly to match the budget figure.

### GENERAL SCOPE OF WORK

Work under this contract shall include all necessary cutting, excavation, materials, tools, labor and equipment incidental to the cleaning, cutting, routing, repair or sealing of asphalt pavement and appurtenant work as designated by the Highway Superintendent or his authorized agent.

### **STATE STANDARDS**

All materials and methods of construction shall be in accordance with the current specifications of the Town of Newington and the latest Connecticut Department of Transportation's standard specifications for roads, bridges and incidental construction, Form 816 or as amended.

### **AWARD**

Notice of Acceptance of Bid will be given to the successful bidder by the Town by mail to the bidders' address stated on the Bid Form. If, within ten (10) calendar days immediately after receipt of Notice of Acceptance of Bid, the successful bidder shall fail or refuse to deliver the specified bonds properly executed, the bidder's bid and the Town's Notice of Acceptance of Bid, at the sole option of the Town, shall become null and void and the Town may proceed to accept another of the Bids. The Contractor shall start work under this contact and shall continue to completion with all practical dispatch and regularity. Work shall be started and completed within times which the Town has stated herein.

# PROTECTION OF THE PUBLIC, WORK AND PROPERTY

The Contractor shall take all proper precautions to protect the public from injury or unnecessary interference, and provide proper means of access in the event driveway or street access is cut off by the Contractor. The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private place for travelers, vehicles and access to hydrants. The Town shall be held harmless for any claims against the Contractor.

The Contractor shall provide and maintain all necessary watchmen, barricades, flashing lights and warning signs and take all necessary precautions for the protection of the public. He shall continuously maintain adequate protection of all work against damage, and shall take all reasonable precautions for protection of the Town from injury or loss arising in connection with this Contract. He shall make good any damage injury or loss of his work and to the property of the Town resulting from lack of reasonable protective precautions, except such as may be to errors in the Contract Documents, or caused by agents or employees of the Town. He shall adequately protect adjacent private and public property, as provided by law and the Contract. No direct payment will be made for this item. All excavated areas shall be barricaded by the Contractor and lit with electrified flashers during the hours of darkness.

### SUSPENSION FOR WEATHER CONDITIONS

Should the work be carried on late in the year, and in the opinion of the Town Manager or his designated agent is in danger by reason of inclemency of weather or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Town Manager or his designated agent, and shall not resume them until ordered to do so by the Town Manager or his designated agent, when the weather conditions are favorable. The time of suspension should not be considered in the winter months. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances

for use by the public during the time the work is suspended as herein provided without cost to the Town.

### **UNSATISFACTORY PERFORMANCE**

If the Contractor either ceases operation or fails to begin work after issuance of a written Notice to Proceed or a Town purchase order for ten (10) working days the Town shall reserve the right to notify the Contractor that it is not performing the work in a satisfactory manner. If, in the opinion of the Town Manager or his designated agent, the Contractor is not prosecuting the work at a sufficient rate of progress, so as to finish in the time specified, or has abandoned said work or is not complying with the terms and stipulations of the contract and specifications, the Town Manager or his designated agent may serve notice on the Contractor to adopt such methods as will insure the completion of the work in the time specified or in compliance with the terms and stipulations of the contract and specifications.

If, within five (5) days after the Town Manager or his designated agent has notified the Contractor that it is not performing the work in a satisfactory manner as stated above, the Town Manager shall have the right to declare the Contractor in default. The Town Manager may then annul the Contract and either manage the work under the direction of the Highway Superintendent or re-let as a new Contract with another Contractor, the work remaining to be done without in any manner affecting or releasing the bond of the defaulting Contractor. The cost of the work under said new contract, shall be considered extra cost to the Town of the work left undone by the defaulting Contractor, and may be recovered by the Town by calling the original bond.

# **ROYALTIES AND PATENTS**

The Contractor shall pay all royalties and license fees and assume all costs related to the use of any invention, design, process or device which is subject to patent rights or copyrights held by others. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Newington harmless from loss when a particular manufacture, produce, or process is specified by the Town of Newington.

#### **PERMITS**

Permits, license and temporary easements necessary for the prosecution of the work shall be secured and paid for by the Contractor. No permit fee will be assessed for work within the Town right-of-way.

The Contractor shall make arrangements with adjacent property owners to allow for such trespass as he may reasonably anticipate in the prosecution for the work. All such arrangements shall be reported in writing to the Highway Superintendent.

If this project involves work on a State Highway, the Contractor shall obtain a permit from District I, Connecticut Department of Transportation, Bureau of Highway, for work within said State Highway rights of way and shall be responsible for any permit fees, insurance certificates and bonds to obtain same.

### INSPECTION OF WORK

Inspectors employed by the Town shall be authorized to inspect all work done and material furnished. Such inspection may extend to all or any part of the work, and to the preparation or manufacture of the materials to be used. In case of any dispute arising between the Contractor and the Inspector as to materials furnished or the manner of performing the work, the Inspector shall have authority to reject materials or suspend the work until the question at issue can be referred to and decided by the Highway Superintendent. The Inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirements of these specifications, nor to approve or to accept any portion of the work, nor issue any instruction contrary to the plans and specifications. The Inspector shall in no case act as foreman or perform other duties for the Contractor, or interfere with the management of the work by the Contractor. Any advice which the Inspector may give the Contractor shall in no circumstance be construed as binding the Town in any way nor releasing the Contractor from fulfillment of the terms of the Contract. The Highway Superintendent and his representative shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

If the specifications, instructions from the Highway Superintendent or his designated agent, Town ordinances, State statutes, or any public authority require any work to be specially tested or approved, the Contractor shall give the Highway Superintendent or his designated agent timely notice of its readiness for inspection, and if the inspection is by another authority other than the Highway Superintendent or his designated agent, of the date for such inspection. Inspections by the Highway Superintendent or his designated agent shall be promptly made. The Contractor shall furnish the Highway Superintendent with the required certificates of inspection, testing or approval. All such tests shall be in accordance with the methods prescribed by the American Society for Testing and Materials or other such applicable organization as may be required. The cost for all such inspections, tests, and approvals shall be borne by the Contractor. If work should be covered up without approval or consent of the Highway Superintendent or his designated agent, it must, if required by the Highway Superintendent or his designated agent, be uncovered for examination and properly restored at the Contractor's expense. A minimum 24-hour prior notice for all inspections shall be made to the Highway Department at 667-5810, 7:30 a.m. to 3:30 p.m.

Re-inspection of any work may be ordered by the Highway Superintendent or his designated agent and, if so ordered, the work must be uncovered by the Contractor. If work is found to be in accordance with the Contract Documents, the Town shall pay the cost of re-inspection and replacement. If such work is not in accordance with the Contract Document, the Contractor shall pay such cost.

### **EXISTING IMPROVEMENTS**

The Contractor shall conduct his work so as to minimize damage to existing improvements, except where specifically stated in the specifications or drawings, and it will be the responsibility of the Contractor to restore, as nearly as practical, to their original condition all improvements on public or private property damaged as a result of the work, at the Contractor's expense.

# TRAFFIC AND SAFETY

The Contractor shall provide such barricades, signs, warning, flagmen or police and shall conduct his work in such a manner so the hazards to vehicular and pedestrian traffic are at a minimum. If, in the opinion of the Highway Superintendent additional precautions or measures should be taken in the interest of public safety, the Contractor shall so comply. If the Contractor finds it necessary to close a portion of the road to vehicular traffic, the approval of the Legal Traffic Authority shall be obtained. The Contractor shall notify the Fire and Police Department and any other concerned agencies of such road closing. Access shall be provided at all times to fire hydrants.

## PROPERTY MARKERS

Property line pins and concrete bound markers shall be protected. Any markers moved or destroyed during construction shall be reset by a State of Connecticut Licensed Land surveyor at the Contractor's expense.

# **ASSIGNMENTS**

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the contract or any portion thereof, or of the work provided therein, or of his right, title or interest therein, to any person, firm partnership or corporation without the written consent of the Town. If any part of the work is sublet, sold, transferred assigned or otherwise disposed of, the Contractor will not be relieved of any responsibility in connection therewith.

### **UNIT PRICES**

The prices herein shall be made a part of the contract upon execution and will remain in effect until the completion of the project and cannot be renegotiated due to changes in cost of materials or labor costs.

### COMPLETION DATE

The Contractor shall have a time period to complete the work from the date of the written Notice to Proceed, or Town purchase order, until November 1st. If additional work

remains or is identified by the Town, the Contractor will be expected to return in the spring and complete it by June 15<sup>th</sup>. A written request for extension due to unusual circumstances may be granted by the Highway Superintendent. Fall seeding of damaged grass areas shall take place between August 15<sup>th</sup> and October 15<sup>th</sup>.

# TIME OF WORK

No work will be allowed between the hours of 4:00 p.m. and 7:00 a.m. Monday through Friday. No work will be allowed on Saturdays, Sundays, and Holidays unless authorized by the Highway Superintendent. If work is authorized, then inspection will be required at the Contractor's expense.

### CONTRACTOR'S SUPERVISION

The Contractor shall supervise and direct the work efficiently and with its best skill and attention. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures for completion of the work. The Contractor shall be responsible to see that the finished work complies accurately with the contract documents.

#### TOWN OF NEWINGTON

#### HIGHWAY CRACK SEALING

#### TECHNICAL SPECIFICATIONS

### SCOPE OF WORK

The work covered by this section of the specification consists of furnishing all plant, labor, equipment and materials necessary to perform all operations in connection with the cleaning and filling of random cracks in asphalt pavements, and vegetation removal and sterilization of cracks where necessary.

# **MATERIAL DESCRIPTION**

The sealing compound shall be of the rubber-asphalt-hot poured type conforming to the following specifications: Federal Specification SS-S-164, AASHTO M 301, and ASTM D6690, type 2. The qualities of the sealant shall be as specified by the manufacturer and shall:

Form a good bond to crack sides.

- Have elastic properties that enable it to withstand movements of approximately twice the formed width of the crack.
- Have extensibility at low temperatures.
- Resist flow at high temperatures.
- Be viscous enough at pouring temperature to flow into cracks.
- Result in a positive seal.
- Resist intrusion of foreign matter.
- Be long lasting.
- Not be picked up by vehicle tires at an ambient temperature of 125 degrees Fahrenheit.

# **EQUIPMENT**

Equipment used in the performance of the work required by this section of the specification shall be subject to the approval of the Highway Superintendent or his designated representative and maintained in a satisfactory working condition at all times.

- 1. Air compressor. This shall have a minimum capacity of 90 psi and shall have sufficient hose to maintain a continuous sealing operation without interruption. The compressor shall be equipped with traps that shall maintain the compressed air free of oil and water.
- 2. Hand tools shall consist of brooms, shovels, metal bars, with chisel shaped ends, and any other tools which may be satisfactorily used to accomplish this work.
- 3. Melting kettle. This shall be used to melt the joint sealing compound and shall be double boiler, indirect fired type. The space between the inner and outer shells shall be filled with a suitable heat transfer oil or substitute having a flash point of not less than 600 degrees Fahrenheit. The kettle shall be equipped with a satisfactory means of agitating the joint sealer at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or by a continuous circulating gear pump attached to the heating unit. The kettle shall be equipped with thermostatic control calibrated between 200 degrees and 550 degrees Fahrenheit.
- 4. Hand pouring pots shall be equipped with a mobile carriage and rubber shoe to have a flow control valve which allows all cracks to be filled to refusal so as to eliminate all voids or entrapped air, and shall not leave unnecessary surplus crack sealer on pavement surfaces.
- 5. An application wand and shoe may be used instead of pour pots and shall produce a sufficient band on each side of the crack. The height of the sealant above the crack shall not exceed 1/16 of an inch above the crack. The hose connected to the wand shall be insulated and pressurized to ensure material temperature is maintained.

6. Router. The equipment for preparing cracks shall be a rotary impact type cutter which shall provide a uniform reservoir to the specified dimensions.

### PROCESS DESCRIPTION

The Rout and Seal process shall consist of the use of a machine router capable of routing cracks less than or equal to ½ an inch in width and routing to a minimum depth of ½ an inch. Compressed air shall be used to clean the crack prior to sealing and all debris shall be blown to the street gutter.

The Air Clean and Seal process shall consist of compressed air cleaning of cracks larger than 5/8 of an inch, removing sand and debris, and filling the crack flush with the surrounding pavement, free of voids, at a depth no greater than 3/4 of an inch unless approved by the Town's Highway Superintendent or his designated representative and a proper backer rod is used. All debris from the compressed air cleaning shall be blown to the street gutter prior to sealing. The intent for the use of this process is for sealing cracks that are larger than those which a router would provide.

# **PREPARATION**

All cracks shall be thoroughly cleaned to remove all dirt, moisture, foreign material and loose edges from the crack wall. Compressed air shall be used to accomplish this and all debris shall be blown to the street gutter.

When cracks show evidence of vegetation, the vegetation shall be removed and sterilized by use of a propane torch unit that shall eliminate all vegetation, dirt, moisture and seeds.

At those locations where the Contractor will be allowing vehicle traffic to pass over crack sealer prior to curing the Contractor shall apply an anti-tracking liquid on all sealer applied, Glenzoil or an equivalent product that is acceptable to the Highway Superintendent or his designated representative.

No crack sealing material shall be applied in wet cracks, when frost is present, or when the ambient temperature is below 40 degrees Fahrenheit.

If cracks are not dry, the Contractor may use a hot air lance to dry the crack completely. The hot air lance shall be a propane torch capable of drying the crack. The filling of any such cracks will be subject to the approval of the Highway Superintendent or his designated representative.

### PREPARATION OF SEALER

Joint sealing material shall be heated in a double jacketed, oil filled kettle and applied at the temperature specified by the manufacturer.

# **INSTALLATION OF SEALER**

All cracks shall be sealed as specified herein, and the sealer shall be well bonded to the pavement. Unless otherwise directed, the cracks shall be completely filled flush with the pavement and not less than 1/16 of an inch below the surface, without the formation of voids or entrapped air. Best results are obtained when sealant depth-to-width ratio does not exceed 2 to 1 and when the joints are opened to at least ½ an inch wide. When large, deep cracks exist an approved backer rod shall be used prior to filling the crack. Black Beauty may be used to fill the crack or another Connecticut Department of Transportation approved method may be used, subject to the approval of the Highway Superintendent or his designated representative. Backer rod, black beauty or another approved method shall be used for cracks exceeding ¾ of an inch in depth and 1 inch in width. The cost of the backer rod and the labor to install it shall be a separate line item under the air clean and seal by the pound portion of this bid, and shall be priced by the linear foot.

# **WORKMANSHIP**

Workmanship shall be of the highest quality, and excess or spilled sealer shall be removed from the pavement by approved methods and discarded by the Contractor. Any workmanship determined by the Town to be below the high standards of the particular craft involved shall not be accepted by the Town, and shall be corrected and/or replaced as required by the Highway Superintendent or his designated representative.

### TRAFFIC CONTROL

For traffic control on a two lane type, non-divided highway, the Contractor shall supply and be responsible for all labor, including traffic persons, equipment, signs, sign supports, cones and any other materials necessary. All temporary traffic control devices and flag person control shall conform to the Manual of Uniform Traffic Control Devices. Flag persons shall wear safety apparel and be equipped with devices as prescribed by the Manual of Uniform Traffic Control Devices. Flagging procedures shall be in accordance with the Manual of Uniform Traffic Control Devices. Flagging stations shall be located such that approaching road users shall have sufficient distance to stop at an intended stopping point as required by the Manual of Uniform Traffic Control Devices. Flag persons shall be dedicated to traffic control duties only. If relief for the flag person is needed another person shall assume those duties and responsibilities until the flag person returns.

#### **OVERTIME**

Almost all of the work performed for the Town shall be between the hours of 7:30 am and 3:30 p.m., Mondays through Fridays. There may be some work that needs to be done

at night, such as a public building parking lot or a local street with high traffic counts. Additional charges, over and above the base bid amounts, for work performed outside these hours shall be a separate item on the Bid Form. No overtime work shall be performed without the approval, in advance, of the Highway Superintendent or his designated representative.

# **NOTICE**

The Contractor shall begin work on or about July 1st of each year, and work continuously until areas designated by the Town are completed. After this work has been completed, the Town shall notify the Contractor of any additional work. The Contractor shall provide the Town with two weeks prior notice of the start date of the Contractor's operations in order for the Town to be able to arrange for inspection services.

# TOWN OF NEWINGTON

# HIGHWAY CRACK SEALING

# BID FORM

In accordance with the specifications, the undersigned submits the following bid for highway crack sealing in Newington:

BASE BID A. Using the rout and seal method,	as specified, for the amount of:
\$	per linear foot
B. Using the air clean and seal meth	nod, as specified, for the amount of:
\$	per pound
OVERTIME COSTS  A. In the event that work is required and above the base bid amount) of	d at night or on Saturdays, an additional charge (over
\$	_ per hour would apply, <u>not</u> including traffic control
B. In the event that work is required and above the base bid amount) of	l at night or on Saturdays, an additional charge (over
\$	per hour would apply, including traffic control

The undersigned is submitting this bid without collusion with any other individual or corporation.

SUBMITTED FOR:	SUBMITTED BY:
Firm	Signature
Address	Name
	Title
	Telephone